

19980816.qrp v01\_n185.qrs.980816

Date: Sun, 16 Aug 1998 19:03:09 EDT  
From: qrp-l@Lehigh.EDU  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: QRP-L digest 1185

QRP-L Digest 1185

Topics covered in this issue include:

- 1) [17638] 40 Meter DX  
by "KWM" <martins@ccosmo.net>
- 2) [17639] Re: Antenna Tuner Kits  
by RangerSF5@aol.com
- 3) [17640] Re: Antenna Tuner Kits  
by Brian Kassel <bkassel@dancris.com>
- 4) [17641] Re: Adding WARC Bands to Trap Vertical  
by RABRUNER@aol.com
- 5) [17642] Need word processing software for QSL cards  
by Jim Hale <kj5tf@madisoncounty.net>
- 6) [17643] TL5A QRP/M  
by Jim Hale <kj5tf@madisoncounty.net>
- 7) [17644] Re: Antenna Tuner Kits  
by RangerSF5@aol.com
- 8) [17645] 10 Meters Wide Open!  
by "Steve Yates, AA5TB" <aa5tb@swbell.net>
- 9) [17646] Z-matches, T-matches, radio matches & cricket matches  
by nilsbull@juno.com (Nils R Young)
- 10) [17647] Re: Miles per watt with BPSK?  
by n2tpa@juno.com (Bill d Lazure)
- 11) [17648] Re: Antenna Tuner Kits  
by n9qil@juno.com (Kenneth R Wezeman)
- 12) [17649] VFO with AD9850  
by "Craig B. Johnson" <johns516@maroon.tc.umn.edu>
- 13) [17650] Antenna Tuner Tests  
by "Bob Kellogg" <ae4ic@nr.infi.net>
- 14) [17651] KH2D's Homepage  
by Paul Helbert <phelbert@rica.net>
- 15) [17652] Re: Miles per watt with BPSK?  
by Rich Mulvey <mulveyr@mulveyr.roc.servtech.com>
- 16) [17653] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
by we6w@juno.com (Ed Loranger)
- 17) [17654] 10 MTRS  
by marion@montana.com
- 18) [17655] tuner loss  
by marion@montana.com
- 19) [17656] Re: Adding WARC Bands to Trap Vertical

- by w4bws@juno.com (Donald E Sanders)
- 20) [17657] Want more info RE tuners  
by RangerSF5@aol.com
- 21) [17658] Re: 10 MTRS  
by "Harvey D. D. Hetland" <n6mm@earthlink.net>
- 22) [17659] 7.148MHz  
by KC5TJA <kc5tja@topaz.axisinternet.com>
- 23) [17660] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
by "Arjen Raateland, FEI/Impacts Research" <Arjen.Raateland@vyh.fi>
- 24) [17661] QSL info for C56/DL6AMI  
by W9SUL <pugrad@millcomm.com>
- 25) [17662] test  
by hartzler <hartzler@abcs.com>
- 26) [17663] Re: VFO with AD9850  
by Leon Heller <leon@lfheller.demon.co.uk>
- 27) [17664] Ten Meters Last Nite (8/15)  
by "Gary M. - W2UX" <MAIL4GARY@worldnet.att.net>
- 28) [17665] SG-2020 info: Thanks!  
by Robsparks@aol.com
- 29) [17666] qrp number and another question???  
by bob evinger <revinger@marshallonline.com>
- 30) [17667] Re: qrp number and another question???  
by Monte Stark <ku7y@dri.edu>
- 31) [17668] Re: Winlinks/10120?? khz QRM  
by Vic Rosenthal <rakefet@rakefet.com>
- 32) [17669] Re: tuner loss  
by marion@montana.com
- 33) [17670] questions, anten and grounding  
by Scott Howell <whowell@hq.nasa.gov>
- 34) [17671] looking for 15m mod for Sierra  
by Scott Howell <whowell@hq.nasa.gov>
- 35) [17672] Re: 8 Bands QRP on 2 Wheels - PHOTOS  
by VE3JC - John C <jbcumming@wwdc.com>
- 36) [17673] DeMaw 70's Portable Rig PCB artwork  
by K2UD@aol.com
- 37) [17674] BUTTERNUT 12/17 add-on wanted.  
by Mike Duke <K5xu@cris.com>
- 38) [17675] QRP rigs featured on Sept. cover of JA CQ Magazine  
by "Eric Swartz - WA6HHQ, EleCraft" <erics@elecraft.com>
- 39) [17676] Re:TUNER Losses/dB's  
by we6w@juno.com (Ed Loranger)
- 40) [17677] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
by "George T. Baker" <w5yr@swbell.net>
- 41) [17678] Re: TUNER Losses/dB's  
by "George T. Baker" <w5yr@swbell.net>
- 42) [17679] Backyard Portable with St. Louis Vertical  
by Kelly <kelman@dialnet.net>
- 43) [17680] Center loading SLV

- by "Adam B. Kanis" <adam-kanis@uiowa.edu>
- 44) [17681] Re Adding WARC Bands  
by Joseph Mikuckis <k3chp@erols.com>
- 45) [17682] Re: Backyard Portable with St. Louis Vertical  
by n9qil@juno.com (Kenneth R Wezeman)
- 46) [17683] Re: Great Vertical Antennas memo  
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
- 47) [17684] Reminder: NERD'S Contest - Sept 12th  
by "Bill Todd" <bill@willapabay.org>

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Date: Sat, 15 Aug 1998 16:57:46 -0700  
From: "KWM" <martins@ccosmo.net>  
To: qrp-l@Lehigh.EDU  
Subject: [17638] 40 Meter DX  
Message-ID: <199808151657460160.0078C8B0@cosmoaccess.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="ISO-8859-1"  
Content-Transfer-Encoding: quoted-printable

Group:

Has anyone had any luck with 40 meter DX lately? If so what time and freq?=  
I plan to stay up late tonight to see if I can snag something!

Keith

-----

Date: Sat, 15 Aug 1998 21:23:38 EDT  
From: RangerSF5@aol.com  
To: ki6ds@dpol.k12.ca.us, qrp-l@Lehigh.EDU  
Subject: [17639] Re: Antenna Tuner Kits  
Message-ID: <8147e09b.35d6349b@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

In a message dated 98-08-15 13:40:25 EDT, ki6ds@dpol.k12.ca.us writes:

<< Subj: Antenna Tuner Kits  
Date: 98-08-15 13:40:25 EDT  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
Sender: owner-qrp-l@Lehigh.EDU  
Reply-to: ki6ds@dpol.k12.ca.us  
To: qrp-l@Lehigh.EDU (Low Power Amateur Radio Discussion)

Tim, I recommend the ZM-2 Antenna Tuner Kit from Roy Gregson at Emtech.  
This is a neat tuner for QRP, it is small, it matches everything, and it even  
has a neat LE >>

Can anyone tell me what the the losses are on this tuner?  
I avoid tuners as much as I can but now that i'm packing into the woods,a good  
tuner would be nice but as much as I heard of this tuner,I don't ever recall  
reading any specs.  
If I go light weight,it will be a randon wire and if i'm pushing 2 watts,how  
much will be lost in the tuner?  
Bob  
WA2HOQ

-----  
Date: Sat, 15 Aug 1998 18:42:04 -0700  
From: Brian Kassel <bkassel@dancris.com>  
To: RangerSF5@aol.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [17640] Re: Antenna Tuner Kits  
Message-ID: <35D638EC.CB815CDF@dancris.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

> In a message dated 98-08-15 13:40:25 EDT, ki6ds@dpol.k12.ca.us writes:  
  
> Tim, I recommend the ZM-2 Antenna Tuner Kit from Roy Gregson at Emtech.  
  
RangerSF5@aol.com wrote:  
  
> Can anyone tell me what the the losses are on this tuner?

Bob and Gangue:

It has always placed near, or at the top, of the list when efficiency  
tests were run and published to QRP-L a year or so ago. It is an  
extremely  
low loss design. I own 2, and have never been disapointed with  
any portable/load configuration. It does tune very sharply, owing  
to it's high Q, but one gets used to that soon. It is especially  
effective  
when feeding balanced types of antennas, and balanced line.  
I understand your concern for losses, as many comercial designs can be  
quite "lossey" under some fairly commonly encountered loads.  
No, neither of mine are for sale....ever! ;)

--

Brian Kassel W5VB0  
ARCI # 3623  
Phoenix AZ ScQRPions

-----  
Date: Sat, 15 Aug 1998 22:03:54 EDT  
From: RABRUNER@aol.com  
To: ji3m@maxwell.com, qrp-1@Lehigh.EDU  
Subject: [17641] Re: Adding WARC Bands to Trap Vertical  
Message-ID: <6bba1bc0.35d63e0b@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

The original Hy-Gain 14AVQ (before the 14AVQ-WB that is more commonly seen today) used an interesting technique for including 20 meters. Only 10 and 15 meters were decoupled with traps. To add 20 meters, they simply used a couple of insulated standoffs and ran the 20 meter radiator up the side of the main pole. I used one of these for many years in the 1970's until Hurricane Frederick dropped a tree on it.

Could this technique be used to add WARC bands to just about any vertical? basically, you would have a tall, thin fan vertical. There might be some interaction with the original tuning, but fiddling with that might be cheaper than buying a new eight band antenna, and you would wind up with full size, trapless resonant verticals on all the added bands.

73's  
Bob Bruner  
WB4TAJ/9  
Near Chicago

-----  
Date: Sat, 15 Aug 1998 21:08:56 -0500  
From: Jim Hale <kj5tf@madisoncounty.net>  
To: qrp-1@Lehigh.EDU  
Subject: [17642] Need word processing software for QSL cards  
Message-ID: <35D63F38.20C7@madisoncounty.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I find myself without any decent word processing software. I need to print small numbers of cards for my island expeditions.

I was told Word 6.0 might be available free somewhere, has anyone seen that? Anykind of good word processing software for free that can be setup to print cards on Avery 5389 or 8387 card stock?

Thanks, de Jim

-----  
Date: Sat, 15 Aug 1998 21:03:45 -0500  
From: Jim Hale <kj5tf@madisoncounty.net>  
To: qrp-l@Lehigh.EDU  
Subject: [17643] TL5A QRP/M  
Message-ID: <35D63E01.7E77@madisoncounty.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

It was a thrill friday evening to work TL5A while I was QRP/M running 3w from my QRP+ to a Hamstick. I heard him calling CQ on 18.069mHz and bagged him at 00:31Z.  
QSL him via PA3DMH, gl 72/3'z de Jim

-----  
Date: Sat, 15 Aug 1998 22:22:20 EDT  
From: RangerSF5@aol.com  
To: bkassel@dancris.com, qrp-l@Lehigh.EDU  
Subject: [17644] Re: Antenna Tuner Kits  
Message-ID: <9648f518.35d6425d@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

In a message dated 98-08-15 21:47:32 EDT, bkassel@dancris.com writes:

<<

It has always placed near, or at the top, of the list when efficiency tests were run and published to QRP-L a year or so ago. It is an extremely low loss design. I own 2, and have never been disappointed with

any portable/load configuration. It does tune very sharply, owing to it's high Q, but one gets used to that soon. It is especially effective >>

LOW LOSS??

Fine

I want specs,numbers,

So it was on the top of the list,compared to what?.

EVERY tuner has some losess and i'm trying to find out what they are.

Bob

WA2HOQ

-----  
Date: Sat, 15 Aug 1998 21:36:05 -0500  
From: "Steve Yates, AA5TB" <aa5tb@swbell.net>  
To: QRP-L Distribute <qrp-l@Lehigh.EDU>  
Subject: [17645] 10 Meters Wide Open!  
Message-ID: <35D64595.116B237E@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The 10 meter band is wide open tonight with sporadic E. Where are all of the QRP ops?

--

Steve Yates

AA5TB

aa5tb@swbell.net

<http://home.swbell.net/aa5tb/>

Fort Worth, Texas

-----  
Date: Sat, 15 Aug 1998 21:50:26 -0500  
From: nilsbull@juno.com (Nils R Young)  
To: QRP-L@Lehigh.EDU  
Subject: [17646] Z-matches, T-matches, radio matches & cricket matches  
Message-ID: <19980815.215623.6510.0.nilsbull@juno.com>

Gang,

I was sittin' around the other day, not doing anything foolish like losing money that I'd just gotten or something, reading Pete Hoover's article about the Z-match in the latest QQ. I thought the SWR/resonance meter was pretty cool, so I started thinking of new ways to screw stuff

up.

Then I remembered how Ten Tec back in the late 60s used to sell this little antoona tenner with a coil & some crocillator clips & a split stator capacitor. I had one once. Never did get it to work right, but I was a lot smarter then. I've picked up some interesting knowledge along the way, none of it useful, but some of it applicable to building one of them Z-match doodads myself. So I did.

For the purists, I used a piece of PVC drain pipe instead of a toroid. I built the whole deal in a plastic box, so I could get lots of hand capacitance effect off it. And I left out the tuning indicator since the one I built didn't quite work right. Too brite or something. Anyway...

I hosed it up to the new Sierra (man, what a kick-butt little radio . . . which is another story) and had a Q with OK2DRQ and a DJ station who couldn't copy me well. On 30m 'cause 40m was full of RTTY something. Dagnab digitalists!

Now, I've used the T and the "ultimate transmatch" for the past 20-odd years of radioing and been pretty happy with it. But I think that this Z-match deal is more efficient for whatever piece of crap antenna I've got up. In the attic. Almost. No postive proof, mind you. All subjective, mind you. Maybe further tests tonight.

Now, if I could just figure out what I did with the money that I got from selling all this stuff . . .

73

Nils

-----  
-----  
Nils R. Bull Young

La Estancia de los Guajolotes Sonrientes :: The Grinnin' Turkey Ranch

WB8IJN &c :: The Tagalong Press :: email to: nilsbull@juno.com

<http://www.geocities.com/Athens/Olympus/9172>

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Date: Sat, 15 Aug 1998 22:29:56 -0400

From: n2tpa@juno.com (Bill d Lazure)

To: mulveyr@mulveyr.roc.servtech.com



Cc: QRP-L@Lehigh.EDU  
Subject: [17647] Re: Miles per watt with BPSK?  
Message-ID: <19980815.224230.7598.0.N2TPA@juno.com>

Rich Mulvey writes:  
Rich (and folks of QRP-L),

I've had it with this thread!! there seems to be a new, or revised old, mode that I know nothing about. May someone explain, in plain english, what BPSK is? Not just the technical end of it, but simply what the name stands for?

I eagerly await your answer,

Bill Lazure  
N2TPA  
Syracuse, NY

P.S. Rich, if you're in Ra-Cha-Cha, I'll look you up at next year's convention to see this new mode in action!!

> How about 1 watt at 400 Hz, which is the power and bandwidth that I  
>am using  
>for my portable ops, using BPSK, and is, incidentally, somewhat better  
>than  
>the 500-700Hz filtering you'll find in the majority of QRP'rs rigs.  
>I'm STILL  
>working DX when all of the CW ops have closed up shop for the night  
>because the  
>human ear can't resolve the CW signal from the noise. Not to mention  
>that when  
>the bands are open, we're communication much faster and with far less  
>error.  
>  
> - Rich  
>  
>--  
>Rich Mulvey  
>My return address is my last name,  
> followed by my first initial, @mulveyr.roc.servtech.com  
><http://mulveyr.roc.servtech.com>  
>Amateur Radio: aa2ys@wb2wxq.#wny.ny.usa  
>  
>

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Date: Sat, 15 Aug 1998 22:01:03 -0500  
From: n9qil@juno.com (Kenneth R Wezeman)  
To: qrp-l@Lehigh.EDU  
Subject: [17648] Re: Antenna Tuner Kits  
Message-ID: <19980815.220104.-201987.0.N9QIL@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

<So it was on the top of the list, compared to what?.>  
<EVERY tuner has some losess and i'm trying to find out what they are.>

The numbers are on page 43 of the April, 1998 issue of QRP Quarterly.  
The review was by Bob Kellogg, AF4IC. His e-mail address was listed as  
"ae4ic@nr.infi.net". He stated that the loss was approximately 1 dB.

Ken Wezeman, N9QIL - Mishawaka, IN  
QRP ARCI #8191; QRP-L #1416

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Or call Juno at (800) 654-JUNO [654-5866]

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Date: Sat, 15 Aug 1998 22:18:00 -0500  
From: "Craig B. Johnson" <johns516@maroon.tc.umn.edu>  
To: <qrp-l@Lehigh.EDU>  
Subject: [17649] VFO with AD9850  
Message-ID: <000301bdc8c4\$7ba380a0\$04195ea0@pentium>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I would like to build the Direct Digital Synthesis VFO that was described  
in July 1997 QEX. It uses a PIC processor to control an AD9850 circuit.

I noticed that the circuit board is available from FAR circuits. However,

I need a source for AD9850. Does anyone know where I can get these in small quantities? Thanks.

- Craig, AA0ZZ

-----  
Date: Sat, 15 Aug 1998 23:05:43 -0400  
From: "Bob Kellogg" <ae4ic@nr.infi.net>  
To: <RangerSF5@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [17650] Antenna Tuner Tests  
Message-ID: <199808160312.XAA16250@mailhost.infi.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Gang,

A year or so ago, I was hot and heavy into doing antenna tuner tests. The Knightlites KnightSMiTe project has kept me busy lately, and I have more tuners waiting (just a-quiver) for the next tests. In the meantime, there are several new members of the list who haven't seen the test results, so the last one issued follows:

Gang, this is the continuing Tuner Test series. Tuners included are:MFJ-949E, ZM-1, St. Louis, Murch 2000A, LDG QRP AT-11, and Super Tee for comparison purposes.

The new one is the MFJ-971, a small tuner popular with QRPers. It's in a small case, and has adjustable sensitivity, so it can be made to read power down to 6 watts full scale. (it doesn't have a 6 watt scale, but you can convert mentally to six watts) Literature claims the tuner covers 160M, however, I obtained no matches on 160M. (it could match some condtions which I didn't check, but it would have very limited usefulness on 160M)

It is important to remember that the information below is a summary, and cannot indicate performance on any individual SWR/Frequency combination. Some tuners perform better on certain frequencies than others. These results are based on testing one or two tuners which may or may not be representative of all of the tuners of the same model. (particularly true of kits which may have variations in wire routing)

Test Results:

The tuners are normally tested for five conditions:

RANGE - The number of SWR/Frequency combinations, within the advertized frequency range of the tuner, that could actually be tuned to 1.1:1 SWR or better.

Results:

MFJ-949E	137/162 (137 out of 162 possible)
ZM-1	140/144
St. Louis	138/144
Murch 2000A	71/72
LDG AT-11	(see notes 1,2)
Super Tee	89/126
MFJ-971	113/162 (none on 160 M)

Note 1: The AT-11 is designed to tune to 1.5 SWR or less. It would often tune to 1.0, 1.3 or something else below 1.5. From a practical standpoint, these SWRs are acceptable. Within it's advertised range, (excluding 160M) there were just 3 combinations tested which did not tune to 1.5 or better. (This is similar to the results obtained with the other tuners tested.)

Note 2: LDG spells out the range their tuner will cover clearly, ie., from 6 ohms to 800 ohms impedance. This was an accurate representation.

EFFICIENCY - The number of SWR/Frequency combinations, within the advertized frequency range of the tuner, which resulted in less than 20% (approx. 1 db) power loss.

Results:

MFJ-949E	49/162
ZM-1	60/144
St. Louis	1/144
Murch 2000A	35/72
LDG AT-11	30/40 (excluding 160M)
Super Tee	9/126
MFJ-971	21/162

AVERAGE LOSS PERCENTAGE - The average signal loss of all of the SWR/Frequency combinations which would match to 1.1:1 or better.

Results:

MFJ-949E	29%
ZM-1	22%
St. Louis	43%
Murch 2000A	22%
LDG AT-11	14% Note: Match was 1.5:1 or better, not 1.1:1.
Super Tee	39% (Bal = 30%, UnBal = 49%)
MFJ-971	31%

SWR BANDWIDTH - The number of SWR/Frequency combinations, within the advertized frequency range of the tuner, which enabled a tuning range greater than 5% of the primary frequency. (5% on

7.2MHz is 360Kc) (Once the tuner is set, how far can we tune from the frequency before SWR climbs to 1.5?)

Results:

MFJ-949E	73/162
ZM-1	61/144
St. Louis	77/144
Murch 2000A	22/72
LDG AT-11	36/40 (excluding 160M)
Super Tee	67/126
MFJ-971	87/162

BALANCE - The number of SWR/Frequency combinations, within the advertized frequency range of the tuner, indicating a balanced output with less than 1.5:1 difference between the lines.

Results:

MFJ-949E	52/81
ZM-1	72/72
St. Louis	72/72
Murch 2000A	N/A (Murch is an unbalanced only tuner)
LDG AT-11	N/A (unbalanced only tuner)
Super Tee	63/63
MFJ-971	50/81

POWER REQUIRED - Normally, I do not make power tests. The AT-11 tuner requires a certain amount of power to make it cycle, however, so this is of interest to QRPers. The literature indicates .1 watt minimum.

However, .1 watt would cycle the tuner only if the antenna load was 50 ohms. Otherwise, up to .7 watt was required to produce an accurate cycle. In some cases, if the tuner was fed less than adequate power, it would give a false reading. (indicate a match of less than 1.5 SWR, when actual SWR was 2.0 or higher)

TUNER DESCRIPTIONS:

MFJ-949E: A C-L-C "T" design. Uses a tapped air inductor. Rated at 300 watts. Balun provides balanced output. Tunes 160M through 10M. Case about 3-1/2" X 10-1/2" X 7-1/4"

ZM-1: A "Z-match" design. Uses a ferrite core inductor. Rated at 15 watts maximum. Link coupled for balanced output. Tunes 80M through 10M. Case about 2-1/2" X 5" X 1-1/2".

St. Louis: A C-L-C design. Uses a tapped ferrite core inductor. Rating unknown, probably 25 watts or more. Balun provides balanced output. Tunes 80M through 10M. Case about 2-3/4" X 6-1/4" X 5".

Murch UT 2000A: An "Ultimate Transmatch" design popular in the

1980's and found in the 80's Handbooks. (This one did not have the "SPC" mod) Rating 2000 watts. Unbalanced output only. Tunes 80M through 10M. Case about 5-1/2" X 12" X 12".

LDG AT-11: An automatic tuner consisting of the "L" design with switched capacitance and inductance. Power rating is 10 watts. Tunes 160M through 10M. Case about 5" X 6-1/4" X 1-1/4".

Super Tee: An "L" design with seven switched inductances and a variable capacitor. Includes a 4:1 balun on the input side. Power rating unknown, probably 25-35 watts. Tunes 160M through 10M. Home Brew or kit, but will fit in a small rig sized case.

MFJ-971: A C-L-C "T" design. Uses a tapped air inductor. Rated to 300 watts. Balun provides balanced output. Has a switchable sensitivity 300 to 6 watts. Tunes 160M (?) through 10M.. Case about 2-1/2" X 6-1/2" X 6"

The test methods used were described by Frank Witt, AI1H, in his April, May, 1995 articles in QST, and in the Antenna Compendium V.

CUL,  
Bob Kellogg, AE4IC, Greensboro, NC  
Prolably, but not nececelery. -- Benny Hill

-----  
Date: Sat, 15 Aug 1998 23:22:01 -0400  
From: Paul Helbert <phelbert@rica.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [17651] KH2D's Homepage  
Message-ID: <35D65059.D38D499A@rica.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Gangue,

Seems we've been only seeing the tip of the iceberg:  
<http://www.qsl.net/kh2d/home.html>

Don't know why this doesn't seem to be linked to the previously mentioned page: <http://www.qsl.net/kh2d/ncitm.html>

This guy runs deep and is fun to read.

Paul, Wv3j

-----  
Date: Sat, 15 Aug 1998 23:32:30 -0400 (EDT)  
From: Rich Mulvey <mulveyr@mulveyr.roc.servtech.com>  
To: <(Bill d Lazure) n2tpa@juno.com>  
Cc: QRP-L@Lehigh.EDU  
Subject: [17652] Re: Miles per watt with BPSK?  
Message-ID: <XFMail.980815233230.mulveyr@mulveyr.roc.servtech.com>  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 8bit  
MIME-Version: 1.0

On 16-Aug-98 Bill d Lazure wrote:

>  
> Rich Mulvey writes:  
> Rich (and folks of QRP-L),  
>  
> I've had it with this thread!! there seems to be a new, or revised  
> old, mode that I know nothing about. May someone explain, in plain  
> english, what BPSK is? Not just the technical end of it, but simply what  
> the name stands for?  
>

Hi Bill:

BPSK stands for Binary Phase Shift Keying. The short answer is that it's a modulation technique that is suited for extremely low power, extremely low S/N ratio communications. It was originally used by LOWFER's, who, as you may know, are restricted in power output and antenna configurations to an extent that makes many QRP'rs look like they run legal limit amps to 5-el beams, in comparison. :-) With the advent of cheap DSP chips, a lot of European, and some US ops have started using it on the amateur bands, with great success.

>  
> P.S. Rich, if you're in Ra-Cha-Cha, I'll look you up at next year's  
> convention to see this new mode in action!!  
>

Give me a yell! If I haven't been sent to some remote corner of the globe to work, I'm always happy to give a demo. :-)

- Rich

--

Rich Mulvey  
My return address is my last name,  
followed by my first initial, @mulveyr.roc.servtech.com  
<http://mulveyr.roc.servtech.com>  
Amateur Radio: aa2ys@wb2wxq.#wny.ny.usa

-----  
Date: Sat, 15 Aug 1998 23:36:25 EDT  
From: we6w@juno.com (Ed Loranger)  
To: n9qil@juno.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [17653] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
Message-ID: <19980815.202527.5327.2.we6w@juno.com>

On Sat, 15 Aug 1998 22:01:03 -0500 n9qil@juno.com (Kenneth R Wezeman)  
writes:

><So it was on the top of the list, compared to what?.>  
><EVERY tuner has some loss and i'm trying to find out what they  
>are.>  
>  
>The numbers are on page 43 of the April, 1998 issue of QRP Quarterly.  
>The review was by Bob Kellogg, AF4IC. His e-mail address was listed  
>as "ae4ic@nr.infi.net". He stated that the loss was approximately 1  
>dB.  
>

Wow, this is the ZM-2? 1 dB. I had no idea 25% of the power was lost in  
these things. Seems a link coupled tuner should be .2 dB max in my book.

Now if I can only find 'my book' hee, hee. :)

1 dB = 25% loss or gain. Seems like a lot for us QRP'ers.  
I know, compared to a mis-matched ant. w/o the tuner one might  
have even more problems, but boy 25% seems like a lot.

No reflection on the ZM-2, I'm sure it is tops. (Read: fine instrument)  
for you non-Californians :) )

Oh, earlier post mentioned 10 Meters WIDE OPEN!  
and "Where are the qrp operators?" I'm here, called CQ, listened  
etc. 10 is Dead as that skunk I saw in the road this morning on  
my way to help this ol' lady wid here computer. (I fixed it!)

See y'all.  
-Ed Loranger we6w.



P.S. I have some RF limiters : DC to 1.8 GHZ and the other up to 18 GHz I think. Designed for 10 Watts input and diode limited for use at the input of Spectrum analyzers and such. Retail: \$500 to \$780 each. Pretty pricey eh? Anyone have a trade for these?

BRAND NEW, NEVER USED!

private to <mailto:we6w@juno.com>

72, Ed WE6W QRP/CW only (VP-0). <http://www.qsl.net/we6w>  
Enjoying Ham Radio every day! Santa Rosa, CA. (CM88ok)

-----  
Date: Sat, 15 Aug 1998 22:48:58 -0600 (MDT)  
From: [marion@montana.com](mailto:marion@montana.com)  
To: [qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)  
Subject: [17654] 10 MTRS  
Message-ID: <199808160448.WAA23248@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Sorry, 10 is dead here in Montana. Wish it wasn't. Roy AB7CE

-----  
Date: Sat, 15 Aug 1998 22:59:00 -0600 (MDT)  
From: [marion@montana.com](mailto:marion@montana.com)  
To: [qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)  
Subject: [17655] tuner loss  
Message-ID: <199808160459.WAA23472@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

I'm not sure I understand a 25% loss either. Just tuned my Sierra with the ZM-2. Four watts out of the radio, 3.75 watts after the tuner. ??  
Roy AB7CE

-----  
Date: Sun, 16 Aug 1998 00:13:19 EDT

From: w4bws@juno.com (Donald E Sanders)  
To: RABRUNER@aol.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [17656] Re: Adding WARC Bands to Trap Vertical  
Message-ID: <19980815.231346.4519.3.W4BWS@juno.com>

Bob, yes it has been done since Hector was a pup. The Hy-gain Hy-tower Jr. used wire for all the elements with some folding to make a cheaper version of the Hy-tower antenna. I have the 14 AVQ at my office with a wire up the side to a plastic pipe piece 3 feet long about 3 feet from the top as a spacer and the wire folds to horizontal and runs to a support to make a 40 meter antenna. works great, just don't forget the counterpoise 1/4 wave on the ground. I did when I first did it and wondered for 2 weeks why it didn't perform as I thought it should.

Donald E. Sanders W4BWS  
694 E. Eau Gallie Blvd. Satellite Beach, Fl 32937  
407-779-0222 Fax 407-779-0830  
E-mail to w4bws@juno.com  
My favorite QRP rig glows in the dark

On Sat, 15 Aug 1998 22:03:54 EDT RABRUNER@aol.com writes:

>The original Hy-Gain 14AVQ < > ran the 20 meter radiator up the side of  
  
>the main pole. Could this technique be used to add WARC bands to just  
about  
>any vertical?  
>73's  
>Bob Bruner  
>WB4TAJ/9  
>Near Chicago  
>  
>

---

You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

---

Date: Sun, 16 Aug 1998 00:58:10 EDT  
From: RangerSF5@aol.com  
To: qrp-1@Lehigh.EDU  
Subject: [17657] Want more info RE tuners  
Message-ID: <8a4beb94.35d666e4@aol.com>  
Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Thanks Guys,  
I sure received a lot of info on the tuners, losses etc.  
I went to the site and looked at the ZM-2.  
Ok the tuner has no meter so does this mean additional losses in the antenna system when I insert a meter in the feed line?  
Well I don't know much about Emtech and I was looking at the Transciever for 40M  
Looks pretty good, smaller than the MFJ, has a real VFO, covers up to 7.200.  
For a \$130.00 looks like a bargain to me.  
Anyone on the list have one of these rigs that can give me more input on it?  
Thanks in advance and many thanks to all for sending me the info on the tuner info.  
Bob  
WA2HOQ

-----  
Date: Sun, 16 Aug 1998 05:34:30 -0700  
From: "Harvey D. D. Hetland" <n6mm@earthlink.net>  
To: qrp-l@Lehigh.EDU  
Subject: [17658] Re: 10 MTRS  
Message-ID: <35D6D1C6.7CC0@earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I spent some time on 10m CW this afternoon and early evening (about 1900 to 0200Z) with a mixed review. No QRPers heard in Southern California, but I worked one local, an Argentina station and a Australian station while using 1 watt from a Sierra into a 5 element beam. Another local must have had pity for me ... He put me on the packetcluster. Another local telephoned to ask why I was not using 28.060 MHz. It was my observation that the openings were rather short in duration and DX stations heard numbered more than USA stations heard.

73, Harvey, N6MM. <http://home.earthlink.net/~n6mm>

-----  
Date: Sat, 15 Aug 1998 23:15:34 -0700 (PDT)  
From: KC5TJA <kc5tja@topaz.axisinternet.com>  
To: qrp-l@Lehigh.EDU  
Subject: [17659] 7.148MHz

Message-ID: <Pine.LNX.3.96.980815231108.16421A-1000000@topaz.axisinternet.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Just to let y'all know, I should be floating SOMEWHERE around 7.148MHz.  
My code speed is characteristically slow. So if you here horribly  
malformed CW, it's probably me and my hacked up key... ;)

I'm using an SW-40+, so that means I've got at most 2W. However, my  
antenna is a 40m dipole, with the elements folded about in my room, so my  
efficiency is going to be total crap. However, it receives very well.

I also notice something else, too. I heard someone calling CQ FISTS  
around 7.148MHz as well. Slowly. And all this without writing a single  
letter on a piece of paper... ;) Slowly, I make my way to 20wpm... NARF!  
(I guesstimate that it was about 7 to 8 wpm.)

```
=====
      KC5TJA/6      |      -| TEAM DOLPHIN |-
      DM13          |      Samuel A. Falvo II
      QRP-L #1447   |      http://www.dolphin.openprojects.net
      Oceanside, CA |.....
```

-----  
Date: Sun, 16 Aug 1998 10:39:15 +0200 (EET)  
From: "Arjen Raateland, FEI/Impacts Research" <Arjen.Raateland@vyh.fi>  
To: we6w@juno.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [17660] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
Message-ID: <01J00331LHXM8Y7S8I@vyh21.vyh.fi>  
MIME-version: 1.0  
Content-type: TEXT/PLAIN; CHARSET=US-ASCII  
Content-transfer-encoding: 7BIT

> On Sat, 15 Aug 1998 22:01:03 -0500 n9qil@juno.com (Kenneth R Wezeman)  
> writes:  
> >The numbers are on page 43 of the April, 1998 issue of QRP Quarterly.  
> >The review was by Bob Kellogg, AF4IC. His e-mail address was listed  
> >as "ae4ic@nr.infi.net". He stated that the loss was approximately 1  
> >dB.  
> >  
  
> Wow, this is the ZM-2? 1 dB. I had no Idea 25% of the power was lost in  
> these things. Seems a link coupled tuner should be .2 dB max in my book.

Ed and gang,

If you look up the original data, you will see that a loss of 20%=1dB or less applies to a certain number of all the test loads measured. For the ZM-1 it was 60 out of 144, but for the St. Louis Tuner it is only 1 out of 144 cases. I wonder WHY and what can be done about it?

For those who don't know: The St. Louis tuner is a CLC T network with a tapped inductor on a iron powder toroid. Unused turns are shorted. The caps are two section air dielectric. (There is also an SWR bridge built in and it's in a nice and sturdy case.)

I can't recall a discussion of why the performance is so poor compared to others in the light of these tests. I know, losses are unavoidable and one dB is only one dB, but what could have been done better in the case of the St. Louis tuner?

73,

Arjen Raateland

OH2ZAZ

--... ..- -.. . --- ..... ..--- ---.. .- ---..  
Finnish Environment Institute, Helsinki, Finland  
SAS Support  
EMAIL: Arjen.Raateland@vyh.fi  
tel. +358 9 4030 0457  
fax +358 9 4030 0490  
.-.-. -.-

-----  
Date: Sun, 16 Aug 1998 04:00:16 -0500  
From: W9SUL <pugrad@millcomm.com>  
To: qrp-1@Lehigh.EDU  
Subject: [17661] QSL info for C56/DL6AMI  
Message-ID: <1.5.4.32.19980816090016.006bbcb8@millcomm.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Can anyone tell me who I contacted and QSL info for (want to QSL direct)...

"C56/DL6AMI", contact made at 0756Z on 8/16/98 on 14.017.3

Rig: Ten Tec Scout, 5 watts, and a VERY low 51 foot dipole fed with 300 ohm TV twinlead.

He had a STRONG signal and was running signals contest style... giving only signal report of 599 to everyone... including me. Straight out of computer memory. He was not giving QSL info.

Thanks for your help... 72 Dave - W9SUL Rochester, MN

72 / 73 Dave - W9SUL

-----  
Date: Sun, 16 Aug 98 07:25:39 PDT  
From: hartzler <hartzler@abcs.com>  
To: qrp-l@Lehigh.EDU  
Subject: [17662] test  
Message-ID: <MAPI.Id.0016.006172747a6c657230303038303038303038@MAPI.to.RFC822>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII; X-MAPIextension=".TXT"  
Content-Transfer-Encoding: 7bit

what are you looking for? this is a test.

-----  
Date: Sun, 16 Aug 1998 05:42:51 +0100  
From: Leon Heller <leon@lfheller.demon.co.uk>  
To: johns516@maroon.tc.umn.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [17663] Re: VFO with AD9850  
Message-ID: <ejGT+AALNm11EwFB@lfheller.demon.co.uk>  
MIME-Version: 1.0

In message <000301bdc8c4\$7ba380a0\$04195ea0@pentium>, "Craig B. Johnson" <johns516@maroon.tc.umn.edu> writes  
>  
>I would like to build the Direct Digital Synthesis VFO that was described  
>in July 1997 QEX. It uses a PIC processor to control an AD9850 circuit.  
>  
>I noticed that the circuit board is available from FAR circuits. However,  
>I need a source for AD9850. Does anyone know where I can get these  
>in small quantities? Thanks.

Farnell-Newark can supply small quantities.

Leon  
--

Leon Heller: leon@lfheller.demon.co.uk <http://www.lfheller.demon.co.uk>  
Amateur Radio Callsign G1HSM Tel: +44 (0) 118 947 1424  
See <http://www.lfheller.demon.co.uk/dds.htm> for details of a simple AD9850  
DDS system. See " /diy\_dsp.htm for a simple DIY DSP ADSP-2104 system.

-----  
Date: Sun, 16 Aug 1998 09:42:06  
From: "Gary M. - W2UX" <MAIL4GARY@worldnet.att.net>  
To: qrp-1@Lehigh.EDU  
Subject: [17664] Ten Meters Last Nite (8/15)  
Message-ID: <3.0.5.16.19980816094206.3c2fa244@postoffice.worldnet.att.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hello Gang,

Ten was in good shape last nite. QRP OPS in scarce supply though. Got on about 0100Z and started calling CQ. Listened to VK4CY work N6MM/qrp about 0120 but could only hear VK4CY. I called him with no luck. Then got an answer from WB0WQS (0134Z) to make FOX #18 (Thanks Kelly). Signals up and down but all good copy. After that worked N5LU/qrp but Bill did not have a number. (DARN!!). Tom, N5TW/qrp, called me to say "Hello", as he always does. It seems that he and I have a pipeline from SC to TX. Last one for the evening was N20C (he was QRO at 0257) from NY and then had to shut down for a really bad thunderstorm. (DARN again!!).

Ten was fun. See you there.

=====  
72/73  
Gary - W2UX  
Lexington, SC  
CW is the REAL Thing!!  
Use it or Lose it.  
=====

-----  
Date: Sun, 16 Aug 1998 09:45:35 EDT  
From: Robsparks@aol.com  
To: qrp-1@Lehigh.EDU  
Subject: [17665] SG-2020 info: Thanks!  
Message-ID: <4e832dd.35d6e280@aol.com>  
Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Please allow me a bit of bandwidth to thank the listers who responded to my question about the SG-2020. I was overwhelmed with email, and there emerged from these comments some pretty consistent themes regarding the 2020:

- 1) Those who had actually purchased and used the rig seemed to love it, especially after installing a software fix for the CW chirp problem.
- 2) The SG-2020 seemed to especially shine as an SSB rig.
- 3) Delivery times were long, and a check with the SGC sales dept. indicated 6-8 weeks currently.
- 4) The ergonomic layout of the panel got more anti-kudos than the infamous CW chirp problem.
- 5) The people at SGC were good to work with, a real plus in today's world.

Many, many thanks for the information, folks. It certainly helped me in my research.

Bob AB5ZD

-----  
Date: Sun, 16 Aug 1998 09:05:04 -0500 (EST)  
From: bob evinger <revinger@marshallonline.com>  
To: qrp-l@Lehigh.EDU  
Subject: [17666] qrp number and another question???  
Message-ID: <Pine.LNX.3.96.980816090216.537B-100000@WD9EKA.ampr.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Somebody want to send me a brief email on what the reference to someones qrp # is???

Is it common practice to sign with a /qrp when calling cq when running qrp? I hadnt typicly done it until I heard another station using it. I seem to get a few more answers now that I have been doing it also.A

thanks  
bob

Bob Evinger | 19250 N. Livingston Road | revinger@marshallonline.com  
WD9EKA | Marshall, IL 62441 |

-----



Date: Sun, 16 Aug 1998 07:29:41 -0700 (PDT)  
From: Monte Stark <ku7y@dri.edu>  
To: bob evinger <revinger@marshallonline.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [17667] Re: qrp number and another question???  
Message-ID: <Pine.SOL.3.96.980816072335.16076C-1000000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sun, 16 Aug 1998, bob evinger wrote:

> Is it common practice to sign with a /qrp when calling cq when running  
> qrp? I hadnt typically done it until I heard another station using it.  
> I seem to get a few more answers now that I have been doing it also.A

Hi Bob,

You will get good advice to do both! :-)

I tend to use /qrp when calling CQ. The reason is that if you are running qrp and you hear a weak CQ there is a good chance you will not call because you "know" that your sig will be even weaker! But by knowing that I am QRP then you know that the conditions are such that we should be able to have a qso.

During a QSO I seldom use it.

I seldom use it when I call another station. No real reason, just the way I do it.

The real bottom line is that it really doesn't matter. There is no right or wrong! :-)

You can get a QRP-L number by sending a request to the listserver. Check your welcome message that was sent to you when you joined the list. Or I'm also sure someone will e-mail you with the proper address and command to use. (I don't have mine handy when using this mailer).

Enjoy,

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----  
Date: Sun, 16 Aug 1998 07:44:55 -0700  
From: Vic Rosenthal <rakefet@rakefet.com>  
To: n4so@juno.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [17668] Re: Winlinks/10120?? khz QRM  
Message-ID: <35D6F067.465DE43E@rakefet.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

charles k brown wrote:

>  
> Documentation is in the Digital MBO list which lists all U.S. Winlink  
> stations called DigMBO U.S. East/West.

Is this information available on the web?

Vic, K2VCO

-----  
Date: Sun, 16 Aug 1998 09:34:11 -0600 (MDT)  
From: marion@montana.com  
To: "Arjen Raateland, FEI/Impacts Research" <Arjen.Raateland@vyh.fi>  
Cc: qrp-1@Lehigh.EDU  
Subject: [17669] Re: tuner loss  
Message-ID: <199808161534.JAA00819@paw.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 10:52 AM 8/16/98 +0200, you wrote:

>> I'm not sure I understand a 25% loss either. Just tuned my Sierra  
>> with the ZM-2. Four watts out of the radio, 3.75 watts after the tuner. ??  
>> Roy AB7CE

>

>Roy,

>

>I don't want to deny your results, after all losses vary according to  
>the load matched, but how do you measure power? I use different  
>methods and usually they all give different results. The exact amount  
>of loss being the difference of two power levels it will be much more  
>uncertain than the already uncertain power levels.



visual device, thus no easy job for me.  
So, is it really necessary to have the ground for both antennas and station gear when in the house? I am certain it would be a good idea, but running a ground wire from the second floor wouldn't be the best idea. I don't have any flexibility in where I put the shack.  
Tnx to all in advance.

Scott Howell n3byy

-----  
Date: Sun, 16 Aug 1998 11:11:44 -0700  
From: Scott Howell <whowell@hq.nasa.gov>  
To: qrp-1@Lehigh.EDU  
Subject: [17671] looking for 15m mod for Sierra  
Message-ID: <3.0.5.32.19980816111144.008639d0@mail.hq.nasa.gov>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

if anyone has this module, please let me know the price. tnx es 72/73  
Scott Howell n3byy

-----  
Date: Sun, 16 Aug 1998 11:07:36 -0400  
From: VE3JC - John C <jbcumming@wwdc.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [17672] Re: 8 Bands QRP on 2 Wheels - PHOTOS  
Message-ID: <35D6F5B8.6A18BC2A@wwdc.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Thanks for all the kind comments on my bicycle mobile setup. I now have a bunch of pictures on my website to illustrate installation details.

<http://www.geocities.com/CapeCanaveral/Lab/7378/>

Vy 73 es 72, JC

\*\*\*\*\*  
VE3JC - JOHN CUMMING

192 WELLINGTON ST. DELAWARE, ON CANADA, N0L 1E0

-----  
Date: Sun, 16 Aug 1998 11:50:39 EDT  
From: K2UD@aol.com  
To: qrp-1@Lehigh.EDU  
Subject: [17673] DeMaw 70's Portable Rig PCB artwork  
Message-ID: <55bc5cf3.35d6ffd1@aol.com>  
Mime-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Is there anybody out there in 5 watt land who might have the PCB artwork for Doug DeMaw's "Portable Station for 3.5 and 7MHz?" This appears in a couple year's worth of the ARRL Handbook, and originally appeared in a QST article of the early 70's called "Once More with QRP." This consisted of 5 or 6 small PCBs.

I am also looking for the RCA KC4000 audio preamplifier kit module that Doug incorporated into this rig.

I know that more modern designs can run circles around this simple rig, and it may perform on a par with the HW-7, but it's a nostalgia thing for me. This is one of the first projects I discovered in my very first days in the hobby. Didn't even know CW at the time, but this rig LOOKED like real ham radio to me. I've always dreamed of building it and will not stop until I do.

I actually touched this rig at the Hamburg, NY Hamfest in September 1973 when Doug gave a talk on Using Integrated Circuits in Ham Radio Designs. My first hamfest ever (I bicycled 20 miles to it and camped in a pup tent, bought my first ARRL Handbook there!). Maybe I was introduced to the hobby correctly by this route!

TNX for any and all help.

Howard Kraus, K2UD

-----  
Date: Sun, 16 Aug 1998 12:28:15 -0400 (EDT)  
From: Mike Duke <K5xu@cris.com>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [17674] BUTTERNUT 12/17 add-on wanted.  
Message-ID: <Pine.SUN.4.01.9808161224390.5287-1000000@voyager.cris.com>

MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

First, thanks to all who responded to my Gap vs Butternut question.

I have decided to try installing the Butternut properly if I can locate a 12/17 meter add-on for it.

Though the subject line didn't show, I'd also consider the 160 section.

If you have these items and would like to part with them, please respond with price/wants.

73,

Mike Duke, K5XU,  
President,  
Mississippi Council of the Blind  
<http://www.prestridge.com/mcb/>

-----  
Date: Sun, 16 Aug 1998 09:50:38 -0700  
From: "Eric Swartz - WA6HHQ, EleCraft" <erics@elecraft.com>  
To: QRP-L <qrp-l@Lehigh.EDU>  
Cc: N6KR <n6kr@elecraft.com>  
Subject: [17675] QRP rigs featured on Sept. cover of JA CQ Magazine  
Message-ID: <35D70DDE.D9C7E254@elecraft.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The September issue of JA CQ magazine is due out today with the EleCraft K2 and the NorCal 40, SST and Sierra from Wilderness on its front cover.

Check out the news section of our web page for a picture of the cover.

<http://www.elecraft.com/news.htm>

72, Eric  
<http://www.elecraft.com>

-----

Date: Sun, 16 Aug 1998 13:28:40 EDT  
From: we6w@juno.com (Ed Loranger)  
To: qrp-1@Lehigh.EDU  
Subject: [17676] Re:TUNER Losses/dB's  
Message-ID: <19980816.101930.5327.0.we6w@juno.com>

Gangue - I've seen about 3 posts quoting 1 dB=20% gain/loss. That is wrong. I posted 1 dB =25% gain/loss. This is correct math (approximate).

Ok, I'll be kind on this, but I'm just about to scream if I see 20%=1dB change another time.....

No, you don't need a spell checker. You don't need a calculator, and the Tech. School I went to had a great instructor who always quoted "rules of Thumb".

1 dB = 25% gain or loss  
3 dB = \* 2 gain/loss  
10 dB= \* 10 gain/loss  
20 dB = \* 100 gain/loss.

To get the factor for 12 dB you would use  
3 dB four times:  $2*2*2*2=16$ .  
So 12 dB gain on 1 Watt is 16 Watts.  
13 dB would be 25% over 12 dB so = 20 Watts.

You can also do 13 db= 10+3 dB=10\*2=20 Watts.

I haven't used a calculator for dB's since tech school.  
To check the math without a calculator:  
For an input of 1 Watt to amplify to 2 Watts, you need 3 dB gain.

Using 1 dB increments (At 25% each to press my point)  
1 Watt \* 1.25 \* 1.25 \* 1.25 =1.95 Watts.  
The above is rule of thumb for 3 dB. (Using 1 db estimate)

If 1 dB is 20 % then 3 dB math would erroneously report:  
1 Watt \* 1.2 \* 1.2 \* 1.2 = 1.73 Watts.  
Anyone see the error?

1 dB is approximately 25% gain or loss.

Soapbox dismantled. Carpet rolled up.  
Good night. Fire is out.

-Ed

72, Ed WE6W QRP/CW only (VP-0). <http://www.qsl.net/we6w>  
Enjoying Ham Radio every day! Santa Rosa, CA. (CM88ok)

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Sun, 16 Aug 1998 12:29:18 -0500  
From: "George T. Baker" <w5yr@swbell.net>  
To: Arjen.Raateland@vyh.fi  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [17677] Re: Antenna Tuner Kits/10 Meters / RF LIMITERS!  
Message-ID: <35D716EE.39B9C8D6@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Shorted turns plus circulating current equals loss.

72/73, George           didit dit  
Amateur Radio W5YR, 52 years and counting! 33.2 N 96.6 W EM13RE  
QRP-L #1373 QRP ARCI #9583 FISTS #4930 ARS #403 ICQ #16819496  
AutoPOWER Systems, Fairview, TX (30 Mi. NE of Dallas) 10-X #11771

Arjen Raateland, FEI/Impacts Research wrote:

> For those who don't know: The St. Louis tuner is a CLC T network with  
> a tapped inductor on a iron powder toroid. Unused turns are shorted.  
> The caps are two section air dielectric. (There is also an SWR bridge  
> built in and it's in a nice and sturdy case.)

-----  
Date: Sun, 16 Aug 1998 13:00:31 -0500  
From: "George T. Baker" <w5yr@swbell.net>  
To: we6w@juno.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [17678] Re: TUNER Losses/dB's  
Message-ID: <35D71E3F.25B11559@swbell.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii



Content-Transfer-Encoding: 7bit

Ed, your entire argument rests on the assertion that a 1 db change is approximately a 25% change. And . . .

That is right!

Actually, the math comes out that it is a 25.8925412...% change. The nit-pickers can argue that it is more nearly a 26% change, but it definitely is NOT a 20% change, even approximately. So, there!

Hang in there, buddy! Just don't try to pawn off any "db's of voltage." I get real upset when someone does that . . .

72/73, George            didit dit  
Amateur Radio W5YR, 52 years and counting! 33.2 N 96.6 W EM13RE  
QRP-L #1373 QRP ARCI #9583 FISTS #4930 ARS #403 ICQ #16819496  
AutoPOWER Systems, Fairview, TX (30 Mi. NE of Dallas) 10-X #11771

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>  
> Gangue - I've seen about 3 posts quoting 1 dB=20%  
> gain/loss. That is wrong. I posted 1 dB =25%  
> gain/loss. This is correct math (approximate).

-----

Date: Sun, 16 Aug 1998 13:24:19 -0500  
From: Kelly <kelman@dialnet.net>  
To: qrp-l@Lehigh.EDU  
Subject: [17679] Backyard Portable with St. Louis Vertical  
Message-ID: <35D723D3.2FAD176E@dialnet.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hello,

Built my SLV Friday night and went Backyard portable Saturday morning with the QRP++ and LDG tuner. Had a rough time raising anyone with the twin lead coil in line, so I by bi-passed the coil and used the 17 foot wire and 3 radials.. finally worked a W3 station on 20 meters. So obviously need to work on the antenna. I have the info from the Norcal page so maybe will try some of those ideas. My yard is heavily wooded so the vertical is not really in the clear at this QTH. Any comments on the SLV besides

what is on the Norcal Web site would be appreciated. 73,

Kelly Ellison  
WB0WQS  
Aurora, MO

-----  
Date: Sun, 16 Aug 1998 13:46:07 -0500  
From: "Adam B. Kanis" <adam-kanis@uiowa.edu>  
To: qrp-1@Lehigh.EDU  
Subject: [17680] Center loading SLV  
Message-ID: <3.0.3.32.19980816134607.006dc85c@divis17.ped-gen.uiowa.edu>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

hi all,

today i had 2 miserable mechanical failures in raising full-size 1/4 wave verticals for 40m. so i started searching for alternatives.

motivated by seeing an SLV at the Iowa QRP Club table at the Amana hamfest recently, i had just purchased 2 black widow 20' poles for St. Louis Verticals (new HUGE sporting goods store opened in Coralville (outside iowa city)). a thought came to mind that on a temporary basis i should be able to extend and mount the SLV about 13 feet up, run a wire from the bottom of the radiator to the feedpoint near the ground (bypassing the coil), and have my full size 1/4 on forty.

Questions for the antenna gurus:

will the coil, now open at its bottom (could be made open at top too, i guess) running parallel and along-side the wire radiator interfere with the resonance of the antenna? i would like to have the antenna resonant on 40 so if i wanted i could get by with coax feeding without a tuner.

is there any reason why i couldn't put the coil in-line in the radiator (13 feet below, regular SLV above) to use as a bottom fed, center loaded vertical for 80m?

BTW- the failed verticals can be redone to make 5/8 wave verticals for the 10m AM, i'll get some use out of the materials.

thanks much.

--adam

Adam B. Kanis, N2BRT      QTH: Wellman, IA (Near Iowa City) EN41ck  
adam-kanis@uiowa.edu      QRP ARCI : NorCal : QRP-L: G-QRP : CQC  
\*\* On the Web at      <http://genome33.ped-gen.uiowa.edu/hamradio> \*\*

-----  
Date: Sun, 16 Aug 1998 15:45:04 -0400  
From: Joseph Mikuckis <k3chp@erols.com>  
To: qrp-l@Lehigh.EDU  
Subject: [17681] Re Adding WARC Bands  
Message-ID: <35D736C0.29FA@erols.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I have Butternut HF-2V vertical designed for 40 and 80 meters. I also use it on 30 meters by shorting the upper coil and shorting the bottom 12 turns on the lower coil. I use no radials and the antenna base is 2 feet above ground.

Joe Mikuckis, K3CHP  
k3chp@erols.com

-----  
Date: Sun, 16 Aug 1998 15:04:08 -0500  
From: n9qil@juno.com (Kenneth R Wezeman)  
To: qrp-l@Lehigh.EDU  
Subject: [17682] Re: Backyard Portable with St. Louis Vertical  
Message-ID: <19980816.150408.-183993.0.N9QIL@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

17' is roughly a 1/4 wave on 20 meters. When you bypassed the coil you made the antenna resonant on 20! (1/4 wave at 14.040 MHz comes out to approx 16.7' - close enough for government work!)

Ken Wezeman, N9QIL - Mishawaka, IN  
QRP ARCI #8191; QRP-L #1416

-----  
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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Sun, 16 Aug 1998 17:37:36 -0400 (EDT)  
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
To: rohre <rohre@arlut.utexas.edu>  
Cc: qrp-1@Lehigh.EDU  
Subject: [17683] Re: Great Vertical Antennas memo  
Message-ID: <Pine.GS0.3.96.980816165705.13863B-100000@larry.cas.utk.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

>  
> In the modeling of antennas, I do not recall seeing such comparisons of the  
> losses of linear decoupling vs. discrete component tuned decoupling or  
> whatever Butternut is doing. Is it possible to include this in modeling such  
> antennas?  
>  
> It would be interesting if someone has already done the detailed analysis of  
> the losses of linear decouplers vs. other methods. I would also like to hear  
> if anyone has worked on adding bands to older pre WARC commercial antenna  
> designs that cover the traditional "harmonic" bands. (80, 40, 20, 10)  
>  
Stuart,

At the present time, not much detailed modeling work exists comparing linear decouplers and traps (under whatever name they go). The reason is that current NEC program (-2, -3, -4) have limitations relating to accuracy when the model consists of two wires that are parallel and of different diameters. I have done extensive investigations into this phenomenon (with some of the results appearing in a long QEX article, some others at the web site) and have concluded that the limitation is real and not easily overcome. The problem affects a number of structures that many antenna analysts would like to work out, including matching sections such as the Tee match, linear loads, and, of course, linear matching and decoupling sections. MININEC is useful to some extent if one can limit the number of segments within the program limit and deal with the slower matrix.

In general, the losses of linear sections, linear loads, and similar structures are largely materials losses--since every real materials has a finite conductance. Hence, they tend to be very high Q components, with Qs from 800 to 1500 being common. However, where used in a network, we should not automatically assume a narrow bandwidth, as we would when used as a reactance substitute for an inductor. Networks have an operating Q, which Terman referred to from the literature of his day as "delta," and a low delta figure generally coincides with a wider operating bandwidth.

The nature of the network requires investigation to determine its delta.

Matching networks, unlike traps or other inductively reactive loads, do not necessarily create significant losses. If the matching network inductor has a Q of 200 or more (a fairly common value), the network efficiency can be well over 99%.

However, even with a very high quality matching network, getting all the power into the antenna is not itself a guarantee of any certain gain level. Treating only antenna length and ignoring all the other variables, there is still a natural progression downward of gain as an antenna is shortened. (The starting point of this progression can be anywhere up to the EDZ length of  $1.25 \lambda$  for a center-fed antenna--or  $5/8 \lambda$  of a monopole.) Short antennas simply do not have as much gain as long ones. Anyone with a modeling program can track the curve of length vs. gain from say  $0.1 \lambda$  up to  $1.25 \lambda$  for a center fed antenna in free space.

In the selection of an antenna that is both vertical and multiband, expect--as one would with a triband Yagi--a compromise in performance. Everyone of the present array of commercial multiband verticals has limitations and "weak" bands. Hence, a large part of the question is whether one a. can live with the weaknesses (do they directly impinge on one's favorite band?) and b. what is the best antenna for one's specific site. Some are stronger than others, a concern for bad wx areas. Some are more visible than others, a concern for those with special neighborhood difficulties. Some are more durable than others in basic construction. Some are a little trickier to set up. For the multiband vertical user, these are real concerns and play a role in the overall engineering decision on selecting the most correct antenna for the situation. And, of course, there is cost.

Although we must always reduce advertising hype by a few notches, not one of the current major players is telling an overt lie about the antennas available--including Butternut, Cushcraft, GAP, and MFJ (and, of course, I have likely left out a couple). Their explanations of the theory of operation may be incomplete, but not false per se. I should like to see greater completeness from everyone. QST reviews have sometimes attempted to fill some of the voids, as with the side bar of how the GAP works on each band, largely quoted from a British source.

But in making a decision on a multiband vertical, localized anecdotes are usually counterweighted by other anecdotes. On a list such as this, where the weight comes down is an accident of how many of which type choose to answer an inquiry. In the end, however, all the real factors of one's own situation must be weighed in making the final decision. Then, careful and exacting installation will prevent many of the problems encountered by other folks with a particular model. Third, regular maintenance will also prevent a large dose of reported problems. Finally, using the antenna for

all it can do will go a long way to making it a better antenna than it would be just sitting there and being griped about because it will not seem to match someone else's antenna on some band or other.

-73-

LB, W4RNL

-----  
Date: Sun, 16 Aug 1998 15:31:23 -0700  
From: "Bill Todd" <bill@willapabay.org>  
To: <nwq-1@scn.org>  
Cc: <qrp-1@Lehigh.EDU>  
Subject: [17684] Reminder: NERD'S Contest - Sept 12th  
Message-ID: <000d01bdc965\$ac53e0e0\$254ffbce@default>  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
    boundary="-----=\_NextPart\_000\_0006\_01BDC92A.ED224F20"

This is a multi-part message in MIME format.

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Content-Type: text/plain;  
    charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Announcing the ultimate antenna designers contest -=20

The NorthWest QRP Clubs=92 "NERDS" contest=20

("Normalized Expedient Radiator Designer=92s Sprint") - 9/12/98!

The goal of our QRP contest is to encourage QRPers to build and erect an =  
antenna

on site, rather than depend on a pre-existing home antenna array. =  
Therefore, this=20

contest encourages antenna designing as well as contesting skill.

"N.E.R.D.S." RULES: Participants will be given ONE hour before the start =  
of this=20

contest to build and erect an antenna on site (no pre-assembled antennas = will be=20

allowed) There is no restriction re. operating from your home QTH, but = you must=20

build and erect your antenna just the same.

Materials Allowed: Participants will be allowed 200 feet of wire, 300 = feet of rope or=20

twine, etc., 100 feet of any kind of feedline you desire including all = the insulators,=20

etc. you might need to use. \*\* A second antenna may be erected at the = same site,=20

using the same formula of 200 ft of wire, etc., but you still have only = ONE hour to=20

build and erect all the antennas you use \*\*

DATE/TIME: Sunday, Sept 12, 1998 - 1800 to 2359Z MODE: CW only

EXCHANGE: Call, RST, State/Prov/Cty. and NW QRP Mbr #, or power level = used.=20

Example: "N7MFB DE KV9X UR 559 TX NR 314 BK"

OPERATING CATEGORIES: QRP, 5 wts output or less, or QRPP, Less than 1=20 wt output.

QSO POINTS: 5 points for every QSO, but you get 10 Points for each QSO = with a=20

NW QRP Club Member. The same station may be worked on different bands = for=20

additional QSO points.

FREQUENCIES: Standard recognized QRP frequencies (no WARC bands).

SCORE: Total score =3D QSO points times your Operating Category (i.e., = QRP=3D X 2 =96=20

QRPP=3D X4)

AWARDS: Award certificates will be given to the top score in each US =  
call area and=20

top dx entry, as well as an award for the overall top score - world =  
wide.

SUBMIT LOGS TO: Alan Dujenski,. KB7MBI -=20

17620 228th Pl NE, Woodinville, WA 98072.=20

E-mail: ARDUJENSKI@aol.com=20

Logs must show Band, Time UTC, Station, RST rec'd, QTH, and NWQ# or Pwr =  
used, and total claimed score.

DEADLINE FOR LOG SUBMISSION IS Sept 30, 1998.

<http://www.willapabay.org/~bill>  
ICQ me @ 8926298

-----=\_NextPart\_000\_0006\_01BDC92A.ED224F20

Content-Type: text/html;  
charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

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</FONT></FONT><FONT size=3D2>- </FONT></P>  
<P><FONT size=3D2>The NorthWest QRP Clubs&rsquo; <FONT=20  
color=3D#800080>&quot;NERDS&quot;</FONT> contest </FONT></P><I>  
<P><FONT size=3D2>(&quot;Normalized Expedient Radiator Designer&rsquo;s=20  
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9/12/98!</FONT></FONT></P><FONT=20  
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\*\*</FONT></P></I><B><FONT size=3D2></FONT></B></FONT><FONT =  
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 <P><FONT size=3D2>Example: <I>&quot;N7MFB DE KV9X UR 559 TX NR 314=20  
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 <P><FONT size=3D2>FREQUENCIES: </FONT></FONT><FONT size=3D2><FONT=20  
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 <P><FONT face=3DArial size=3D2>QRPp=3D X4)</FONT></P><FONT =  
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 score in each US call area and </FONT></FONT></P>  
 <P><FONT face=3DArial size=3D2>top dx entry, as well as an award for the =  
 overall top=20  
 score - world wide.</FONT></P><FONT color=3D#ff0000 face=3DArial>

<P><FONT size=3D2>SUBMIT LOGS TO: </FONT></FONT><FONT size=3D2><FONT =  
face=3DArial>Alan=20  
Dujenski,. KB7MBI - </FONT></FONT></P>  
<P><FONT size=3D2><FONT face=3DArial>17620 228th Pl NE, Woodinville, WA=20  
</FONT></FONT><FONT face=3DArial size=3D3><FONT size=3D2>98072. =  
</FONT></FONT></P>  
<P><FONT face=3DArial size=3D3><FONT size=3D2>E-mail: ARDUJENSKI@aol.com =  
  
</FONT></FONT></P>  
<P><FONT face=3DArial size=3D3><FONT size=3D2>Logs must show Band, Time =  
UTC, Station,=20  
</FONT><FONT size=3D2>RST rec'd, QTH, and NWQ# or Pwr used, and total =  
claimed=20  
score.</FONT></FONT></P><B><FONT color=3D#0000ff face=3DArial size=3D3>  
<P><FONT size=3D2>DEADLINE FOR LOG SUBMISSION IS Sept 30,=20  
1998.</FONT></P></B></FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2><A=20  
href=3D"http://www.willapabay.org/~bill">http://www.willapabay.org/~bill<=  
/A><BR>ICQ=20  
me @ 8926298</FONT></DIV></BODY></HTML>

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End of QRP-L Digest 1185

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